$$\begin{array}{c|c} SC_{12}H_{25} \\ \hline -OC_{10}H_{21} \\ \hline O-P(O)_2-O \\ \hline N_3 \end{array}$$

FIGURE 1A

FIGURE 1C

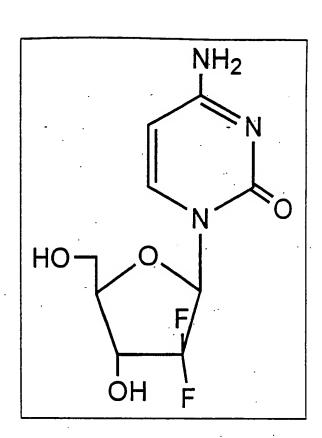


FIGURE 1B

FIGURE 1D

Synthesis of Lipid Backbone

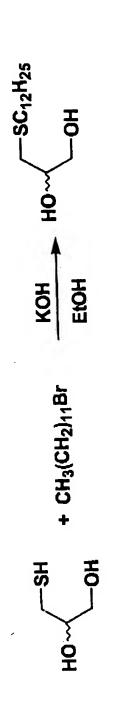
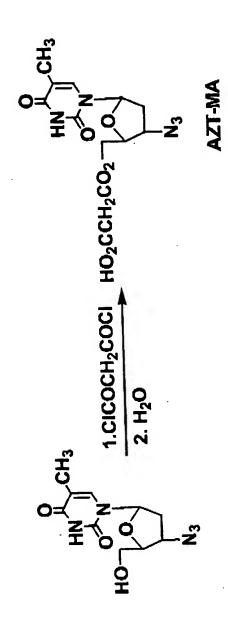






FIGURE 2

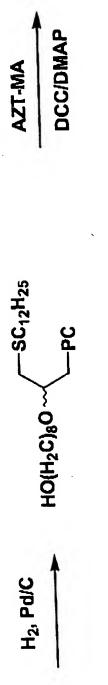
Synthesis of AZT-Malonic Acid (AZT-MA)



Substituted malonic acid chlorides (CICOCHRCOCI) could also be used in the above reaction; $R = CH_3$, CH_2CH_3 , C_6H_5

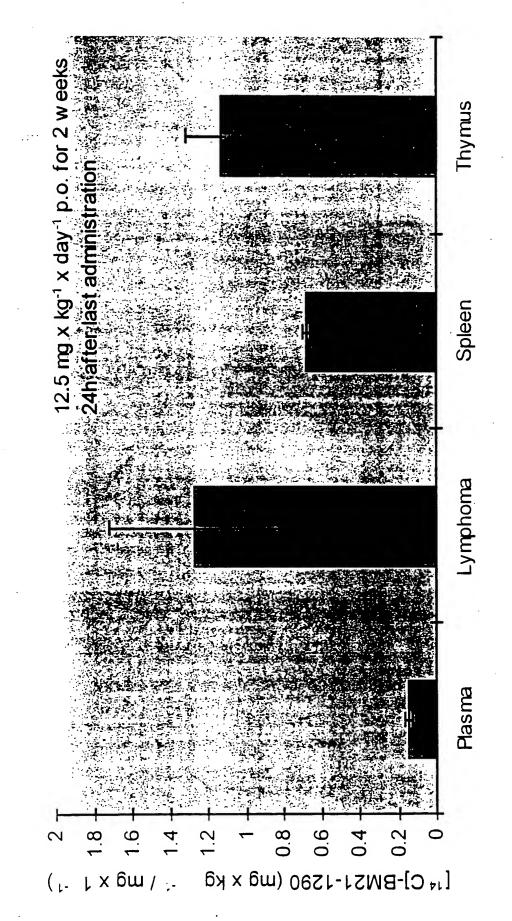
FIGURE 3

Synthesis of AZT-Phosphocholine Conjugate





[14C]-BM 21.1290 concentrations in plasma and lymphoid tissues of female C57BI/6 mice



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FIGURE 5

Plasma and CNS concentrations of [14C]-BM 21.1290 in female C57BI/6 mice

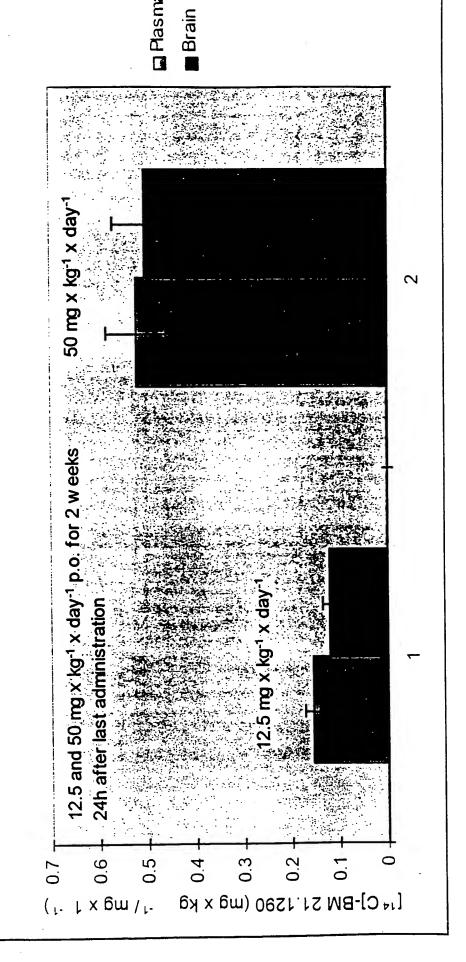


FIGURE 6

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lipid & ara-C coupled through phosphate ester

FIGURE 7A

lipid & gemcitabine coupled through phosphate ester

lipid & ara-C coupled through phosphonate ester

FIGURE 8A

lipid & gemcitabine coupled through phosphonate ester

lipid coupled to methotrexate through an ester

$$C_{10}H_{21}O \xrightarrow{\qquad \qquad \\ O \qquad \qquad \\ COOH \qquad \qquad \\ OCCH_2CH_2CHNHC \qquad \\ OCCH_3 \qquad \qquad \\ N \qquad N \qquad \\ NH_2 \qquad \\ N \qquad N \qquad \\ NH_2 \qquad \\ N \qquad N \qquad \\ NH_2 \qquad \\ N \qquad N \qquad \\ NH_3 \qquad \\ N \qquad \\ NH_3 \qquad \\ N \qquad \\ N$$